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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/524,421

10/03/2005

Richard Merrick

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EXAMINER

BADR, HAMID R

ART UNIT

PAPER NUMBER

4174

MAIL DATE

DELIVERY MODE

12/27/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/524,421	Applicant(s) MERRICK, RICHARD	
	Examiner HAMID R. BADR	Art Unit 4174	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 and 17-22 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-15 and 17-22 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>11/28/05</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-15 and 17-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Howsam (WO 00/69276) in view of Andersen et al. (US 6,277,420)

3. Howsam disclose a method of manufacturing a texturized proteinaceous meat analogue by extruding protein containing raw materials such as soy bean flour, gluten and egg white and subjecting the extrudate to shredding in a hammer mill to produce extrudate shreds that resemble shredded or flaked meat (Abstract).

4. He discloses subjecting a mixture containing 40-95% by weight edible proteinaceous material selected from a group of soy bean flour, soy meal, soy concentrate, vital gluten and egg white and 7% by weight of edible mineral binding and cross linking compounds (Page 4, line 30 spanning to page 5, lines 1-4).

5. He teaches the extrusion of the protein lava through and from a temperature controlled die which cools and reduces the viscosity of the protein lava to obtain a cohesive, texturized extrudate slab or ribbon in which vapor flashing is substantially inhibited . The solidified extrudate is further subjected to mechanical shredding in a hammer mill having a cage plate with a plurality of elongate discharge openings and a plurality of hammer bars. This process produces extrudate shreds with consistency of

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flaked or shredded meat such as fish meat, shredded chicken meat or shredded red meat (Page 5, lines 7-19).

6. He discusses the addition of real meat or meat by product to the meat analogue. This addition may take place prior to, during or after the step of subjecting the mixture to mechanical pressure and heat (Page 5, lines 20-23).

7. He explains that the mixture has a total moisture of 40-60%. Due to loss of moisture during the process, water may be added to compensate for the loss (Page 5, line 31 spanning to page 6 line 3).

8. He gives the quantities of the protein containing materials, binding compounds, fiber, vitamins, flavoring and coloring agents (Page 6, lines 15 to 22).

9. He gives a composition to produce a texturized product mimicking tuna fish (Page 6, line 30 spanning to page 7 line3).

10. He gives details of the hammer mill design modification to be used effectively in his invention (Page 7, lines 12-22).

11. He disclose the details of the extruder as a twin conveyor and pressurizing screw extruder with 4-8 barrel sections which are individually temperature controlled. Each section has a length to diameter ratio of approximately 4. Temperature settings at the individual barrel sections during the manufacturing process will vary between 60°C and 120°C and internal pressure between 3 and 8 MPa at screw speeds of between 200 and 350 rpm (Page 9, lines 17-23).

12. Howsam is silent regarding the use of glycerin and glucose.

13. Andersen et al. disclose a composition for pet chew including a meat filling which is preserved by reduced water activity to below 0.85 as a result of incorporating salt, sugar and natural humectants (Abstract).

14. They teach using sweeteners as agents to reduce the water activity of the meaty filling. They recommend using 10-40% sugars by weight for their purpose. A wide range of sugars including sucrose, dextrose (glucose), fructose, corn syrup and molasses may be used (Col. 5, lines 17-24).

15. Andersen et al. teach using humectants such as glycerol, propylene glycol or sorbitol for superior products. They explain that these humectants further reduce the water activity as well as slow down the tendency of such a product to dry out over an extended market life of more than one year. Adding salt to about 4% will also reduce the water activity. Preservatives such as potassium sorbate, and anti-oxidants such as tocopherols may also be incorporated in the formulation (Col. 5, lines 26-35). A typical formulation is given in Example 1 which includes sugar, glycerin, salt and potassium sorbate among other ingredients (Col. 6, Example 1).

16. It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the teachings of Howsam by adopting and using the teachings of Andersen et al. regarding the use of glycerin and glucose to prevent drying out and reduce the water activity of a textured meat analogue. One would have done so to receive benefit of a product having reduced water activity and resisting drying out. Absent any evidence to contrary and based on the teachings of the cited references, there would have been a reasonable expectation of success to produce such a product.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HAMID R. BADR whose telephone number is (571)270-3455. The examiner can normally be reached on M-F 7:30-5:00 ET (First Friday Off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, D. Lawrence Tarazano can be reached on 5712721515. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. Lawrence Tarazano/
Supervisory Patent Examiner, Art Unit 4174

Hamid R Badr
Examiner
Art Unit 4174